APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,349	09/22/2003	Steven R. Willis	0023-0123DIV1	4916

44987 7590 05/20/2008		EXAMINER	
HARRITY SNYDER, LLP		WILSON, ROBERT W	
11350 Random Hills Road			
SUITE 600	ART UNIT		PAPER NUMBER
FAIRFAX, VA 22030	2619		

MAIL DATE	DELIVERY MODE
05/20/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/665,349	WILLIS ET AL.
	Examiner	Art Unit	
	ROBERT W. WILSON	2619	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *2/22/08*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *46-69* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☐ Claim(s) *46-69* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Priority

1.   Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or

under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or

more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120, as

follows: The basis for the applicant claims in this application are based upon the material filed

as of 9/22/03 and not based upon the material in provisional application 60/090,028.

2.   This application repeats a substantial portion of prior Application No. 09/335,947 filed

6/19/1998, and adds and claims additional disclosure not presented in the prior application.

Since this application names an inventor or inventors named in the prior application, it may

constitute a continuation-in-part of the prior application. Should applicant desire to obtain the

benefit of the filing date of the prior application, attention is directed to 35 U.S.C. 120 and 37

CFR 1.78.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

4.   Claims 46-47 & 59 are rejected under 35 U.S.C. 102(E) as being anticipated by Vogel

(U.S. Patent No.: 6,075,788).

Referring to claim 46, Vogel teaches: A device (Figure 3)

a demultiplexer configured to receive a channelized synchronous optical network (SONET) data
stream and separate channelized SONET data stream into constituent tributary data streams
(Framer Block or demultiplexer receives SONET frame or channelized SONET data streams and
separates the data stream into a SONET SPE or tributary per col. 5 line 25 to col. 6 line 61)

packet over SONET tributary data streams (PPP packet in SONET SPE per col. 5 line 25 to col.
6 line 61) and an asynchronous transfer mode (ATM) tributary data stream (ATM cells in
SONET SPE tributary data stream per col. 5 line 25 to col. 6 line 61) and a demultiplexer with
the channelized SONET data stream (Line interface streams per col. 5 line 25 to col. 6 line 61)

and a line card coupled to the demultiplexer and configured to provide the demultiplexer with the
channelized SONET data stream (Line Interface is coupled to the framer or demultiplexer and
provides a channelized SONET data stream per col. 5 line 25 to col. 6 line 61)

In addition Vogel teaches:

Regarding claim 47, wherein the data stream is received over a single optical fiber (38 per Fig 3
is connected to an inherent single optical fiber)

Referring to claim 59, Vogel teaches: forwarding node for directing data in a network (Figure 3)
the forwarding node including:

A means for creating tributary synchronous optical network (SONET data the tributary stream
including (Framer Block or means for creating; Creates STS-1 SPE of ATM cells and PPP
packets which are tributary data streams per col. 5 line 25 to col. 6 line 61)

Packet over synchronous optical network (POS) tributary data stream (PPP or packet over STS-1
SPE or SONET in a SPE or tributary stream per col. 5 line 25 to col. 6 line 61)

An asynchronous transfer mode (ATM) tributary data stream (ATM in a STS-1 SPE or ATM
over SONET in a tributary stream per col. 5 line 25 to col. 6 line 61)

Means for transmitting the tributary SONET data streams as a single SONET data stream (Line
Interface or means for transmitting the tributary streams provides a single channelized SONET
data stream per col. 5 line 25 to col. 6 line 61)

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 48-58 & 60-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Vogel 6,075,788) further in view of Schmidt (U.S. Patent No.: 6,205,154)

Referring to claim 48, Vogel teach: the device of claim 46 and wherein the tributary data steam
includes a point to point protocol (SPE includes PPP per col. 6 line 39 to 61)

Vogel does not expressly call for: DS tributary data

Schmidt teaches: DS tributary data (VT or T1 tributary or DS-1 tributary per col. 3 lines 33 to
67).

It would have been obvious to add the DS tributary of the Schmidt to the PPP packet to the
SONET Vogel in order to be standards compliant and build a system which is ineroperable with
legacy SONET systems.

Referring to claim 49, Vogel teaches: the device of claim 46 and channelized SONET data
streams

Vogel does not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to
67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the
SONET of Vogel in order to be standards compliant and build a system which is inoperable with
legacy SONET systems.

Referring to claim 50, Vogel teaches: the device of claim 46 and POS tributary data streams per col. 6 line 39 to 61)

The Vogel does not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard of Schmidt to the to the POS tributary data of Vogel in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 51, Vogel teach: the device of claim 46 and ATM tributary data streams per col. 5 line 49 to col. 6 line 24)

Vogel does not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the to the ATM tributary data of Vogel in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 52, Vogel teaches the device of claim 46 and a POS tributary stream and ATM tributary stream (col.5 line 25 to col. 6 line 61)

Vogel does not expressly call for: composite tributary steams that includes a POS tributary and data stream and ATM tributary data

Schmidt teaches: composite tributary streams (Sub STS-1 signals called virtual tributaries which can be used for various types of services per col. 3 lines 33 to 67)

It would have been obvious to add the composite tributary steams of Schmidt in place of the STS SPE of Vogel in order to carry the POS and ATM data simultaneously in order to more efficiently utilize the bandwidth and also be standards compliant.

Referring to claim 53, Vogel teaches: one or more devices in a data processing environment (Line Interface and Framer Block per Fig 3) comprising:

A multiplexer configured to receive tributary data streams (Framer Block or multiplexer receives both ATM cells and PPP packets which are tributary data streams per col. 5 line 25 to col. 6 line 61)

Packet over synchronous optical network (POS) tributary data stream (PPP or packet over STS-1 SPE or SONET in a SPE or tributary stream per col. 5 line 25 to col. 6 line 61)

An asynchronous transfer mode (ATM) tributary data stream (ATM in a STS-1 SPE or ATM over SONET in a tributary stream per col. 5 line 25 to col. 6 line 61)

The multiplexer being further being configured to provide a tributary streams (provides STS-1 SPEs of either ATM or PPP per col. 5 line 25 to col . 6 line 61)

A line card coupled to the multiplexer and configure to receive the single channelized SONET data stream (Line Interface or Line card is coupled to the framer or multiplexer and provides a single channelized SONET data stream per col. 5 line 25 to col. 6 line 61)

Vogel does not expressly call for: combining the tributary streams into single channel SONET data stream

Schmidt teaches: combining the tributary streams into single channel SONET data stream (Subchannels which are VTs can be assigned within an STS-1 to combine different services into a single channelized data stream per col. 3 lines 33 to 67).

It would have been obvious to add the VTs of the Schmidt to the STS-1 of Vogel in order to carry a combined stream of packet over SONET and ATM over SONET in a single SONET stream in order to better utilize the bandwidth as well as standards compliant in order to interoperate with legacy SONET systems.

Referring to claim 54, the combination of Vogel and Schmidt teach: the one or more devices of claim 53 and wherein the tributary data steam includes a point to point protocol (SPE includes PPP per col. 6 line 39 to 61)

Vogel does not expressly call for: DS tributary data

Schmidt teaches: DS tributary data (VT or T1 tributary or DS-1 tributary per col. 3 lines 33 to 67).

It would have been obvious to add the DS tributary of the Schmidt to the PPP packet of the combination of Vogel and Schmidt in order to be standards compliant and build a system which is interoperable with legacy SONET systems.

Referring to claim 55, the combination of Vogel and Schmidt teach: the one or more devices of claim 53 and channelized SONET data streams

Vogel does not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the SONET of Vogel and Schmidt in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 56, the combination of Vogel and Schmidt teach: the one or more devices of claim 53 and Vogel teaches: the POS tributary data streams (per col. 6 line 39 to 61)

Vogel does not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the to the POS tributary data of Vogel and Schmidt in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 57, the combination of Vogel and Schmidt teach: the one or more devices of claim 53 and Vogel ATM tributary data streams (per col. 5 line 49 to col. 6 line 24)

Vogel does not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the to the ATM tributary data of the combination of Vogel and Schmidt in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 58, the combination of Vogel and Schmidt teach the one or more devices of claim 53 and Vogel teaches a POS tributary stream and ATM tributary stream (col.5 line 25 to col. 6 line 61)

Vogel does not expressly call for: composite tributary steams that includes a POS tributary and data stream and ATM tributary data

Schmidt teaches: composite tributary streams (Sub STS-1 signals called virtual tributaries which can be used for various types of services per col. 3 lines 33 to 67)

It would have been obvious to add the composite tributary steams of Schmidt in place of the STS SPE of Vogel in order to carry the POS and ATM data simultaneously in order to more efficiently utilize the bandwidth and also be standards compliant.

Referring to claim 60, Vogel teaches: the forwarding node of claim 59 and wherein the tributary data steam includes a point to point protocol (SPE includes PPP per col. 6 line 39 to 61)

Vogel does not expressly call for: DS tributary data

Schmidt teaches: DS tributary data (VT or T1 tributary or DS-1 tributary per col. 3 lines 33 to 67).

It would have been obvious to add the DS tributary of the Schmidt to the PPP packet of Vogel in order to be standards compliant and build a system which is interoperable with legacy SONET systems.

Referring to claim 61, Vogel teaches: the forwarding node of claim 59 and channelized SONET data streams

Vogel does not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the SONET of Vogel in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 62, Vogel teaches: the forwarding node of claim 59 and the POS tributary data streams (per col. 6 line 39 to 61)

Vogel does not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the to the POS tributary data of Vogel in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 63, Vogel teaches: the forwarding node of claim 59 and ATM tributary data streams (per col. 5 line 49 to col. 6 line 24)

Vogel does not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the to the ATM tributary data of Vogel in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 64, Vogel teaches: the forwarding node of claim 59 and a POS tributary stream and ATM tributary stream (col.5 line 25 to col. 6 line 61)

Vogel does not expressly call for: composite tributary steams that includes a POS tributary and data stream and ATM tributary data

Schmidt teaches: composite tributary streams (Sub STS-1 signals called virtual tributaries which can be used for various types of services per col. 3 lines 33 to 67)

It would have been obvious to add the composite tributary steams of Schmidt in place of the STS SPE of Vogel in order to carry the POS and ATM data simultaneously in order to more efficiently utilize the bandwidth and also be standards compliant.

Referring to Claim 65, Vogel teaches: a method for transmitting information over a fiber optic cable (Figure 3 performs the method) the method comprising:

Constructing a packet over synchronous optical network data stream (PPP packet in SONET SPE per col. 5 line 25 to col. 6 line 61)

Constructing an asynchronous transfer mode (ATM) data stream (ATM cells in SONET SPE tributary data stream per col. 5 line 25 to col. 6 line 61)

Constructing a single channelized synchronous optical network data stream (The framer creates single channelized synchronous optical data per col. 5 line 25 to col. 6 line 45)

Transmitting the single SONET data stream (Line Interface transmits the single SONET data stream per col. 5 line 25 to col. 6 line 61)

Vogel does not expressly call for: combining the POS data stream and the ATM data stream into single data stream

Schmidt teaches: combining different services into a single data stream (Sub STS-1 signals called virtual tributaries which can be used for various types of services per col. 3 lines 33 to 67)

It would have been obvious to add the composite tributary steams of Schmidt in place of the STS SPE of Vogel in order to carry the POS and ATM data simultaneously in order to more efficiently utilize the bandwidth and also be standards compliant.

In addition Vogel teaches:

Regarding claim 66, wherein the single data stream is transmitted over a single optical fiber (38 per Fig 3 transmits to an inherent single optical fiber)

Referring to claim 67, the combination of Vogel and Schmidt teach: the device of claim 65 and Vogel teaches: channelized SONET data streams per col. 5 line 24 to col. 6 line 61)

Vogel does not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the SONET of Vogel and Schmidt in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 68, the combination of Vogel and Schmidt teaches: the device of claim 65 and Vogel teaches: POS tributary data streams per col. 6 line 39 to 61)

Vogel does not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the to the POS tributary data of the combination of Vogel and Schmidt in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 69, the combination of Vogel and Schmidt teach: the device of claim 65 and Vogel teaches: ATM tributary data streams per col. 5 line 49 to col. 6 line 24)

Vogel does not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the
to the ATM tributary data of the combination of Vogel and Schmidt in order to be standards
compliant and build a system which is inoperable with legacy SONET systems.

Double Patenting

5.   A rejection based on double patenting of the "same invention" type finds its support in
the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and
useful process ... may obtain <u>a</u> patent therefor ..." (Emphasis added). Thus, the term "same
invention," in this context, means an invention drawn to identical subject matter. See *Miller v.
Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957);
and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

        A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by
canceling or amending the conflicting claims so they are no longer coextensive in scope. The
filing of a terminal disclaimer <u>cannot</u> overcome a double patenting rejection based upon 35
U.S.C. 101.

6.   The nonstatutory double patenting rejection is based on a judicially created doctrine
grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or
improper timewise extension of the "right to exclude" granted by a patent and to prevent possible
harassment by multiple assignees.   A nonstatutory obviousness-type double patenting rejection
is appropriate where the conflicting claims are not identical, but at least one examined
application claim is not patentably distinct from the reference claim(s) because the examined
application claim is either anticipated by, or would have been obvious over, the reference
claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re
Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225
USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re
Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163
USPQ 644 (CCPA 1969).
        A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may
be used to overcome an actual or provisional rejection based on a nonstatutory double patenting
ground provided the conflicting application or patent either is shown to be commonly owned
with this application, or claims an invention made as a result of activities undertaken within the
scope of a joint research agreement.
        Effective January 1, 1994, a registered attorney or agent of record may sign a terminal
disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR
3.73(b).

7.   Claims 46-47 & 59 are rejected on the ground of nonstatutory obviousness-type double

patenting as being unpatentable over claims 1,3,5, & 8 of U.S. Patent No. 6,658,021 in view of

Vogel (U.S. Patent No.: 6,075,788)

Referring to claim 46, U.S. Patent 6,658,021 teaches: A device (Forwarding node per claim 1)
comprising:

a demultiplexer configured to receive a channelized synchronous optical network (SONET) data
stream and separate channelized SONET data stream into constituent tributary data streams (The
decapsulation logic delineates or separates into multiple formats (tributaries of constituent
tributary data per claim 1) the tributary streams including:

packet over SONET tributary data streams (Claim 5 or Claim 8) and an asynchronous transfer
mode (ATM) tributary data stream (Claim 3)

U.S. Patent No.: 6,658, 021 does not expressly call for: line card coupled to a demultiplexer

Vogel teaches: line card coupled to a demultiplexer (Line Interface or line card coupled to the
Framer or demultiplexer per col.5 line 25 to col. 6 line 61)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add
the line card of Vogel to decapsulation logic which performs demultiplexing in order to build a
system in which the optical to electrical converter can be replaced separately from the
demultiplexer in the event of a failure of either component thus making the repair of the unit
easier.

Referring to claim 47, the combination of U.S. Patent No.: 6,658, 021 and Vogel teach: the
device of claim 46 and data stream.

U.S. Patent No.: 6,658,021 does not expressly call for: Single optical fiber.

Vogel teaches: single optical fiber (inherent in Figure 3)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add
the single optical fiber of Vogel to the device of U.S. Patent 6,658,021 and Vogel in order to
send data via SONET to another node.

Referring to Claim 59, U.S. Patent 6,658,021 teaches: a forwarding node for directing data in a
data network the forwarding node (Forwarding node per claim 1) including:

Means for creating tributary synchronous optical network (SONET) data streams the tributary SONET data streams (Decapsulation logic per claim 1)

A packet over synchronous optical network (POS) tributary data streams (claim 5 or claim 8)

An asynchronous transfer mode (ATM) tributary data stream (claim 4)

And means for transmitting the tributary SONET data stream as a single SONET data stream (input port for receiving would be obvious to have an transmit port for transmitting)

U.S. Patent 6,658,021 does not expressly call for: means for transmitting

Vogel teaches: means for transmitting (Line Interface per Fig 3)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the line card of Vogel to decapsulation logic which performs demultiplexing in order to build a system in which the optical to electrical converter can be replaced separately from the demultiplexer in the event of a failure of either component thus making the repair of the unit easier.

8.   Claims 48-58 & 60-69 are rejected on the ground of nonstatutory obviousness-type

double patenting as being unpatentable over claims 1, 3, 5, & 8 of U.S. Patent No. 6,658,021 in

view of Vogel (6,075,788) further in view of Schmidt (U.S. Patent No.: 6,205,154)

Referring to claim 48, the combination of Vogel and U.S. Patent No.: 6,658,021 teach: the device of claim 46 and Vogel teaches: wherein the tributary data steam includes a point to point protocol (SPE includes PPP per col. 6 line 39 to 61)

U.S. Patent No.: 6,658,021 and Vogel do not expressly call for: DS tributary data

Schmidt teaches: DS tributary data (VT or T1 tributary or DS-1 tributary per col. 3 lines 33 to 67).

It would have been obvious to add the DS tributary of the Schmidt to the PPP packet to the SONET of the combination of Vogel and U.S. Patent No.: 6,658,021 in order to be standards compliant and build a system which is ineroperable with legacy SONET systems.

Referring to claim 49, the combination of Vogel and U.S. Patent No.: 6,658,021 teach: the device of claim 46 and channelized SONET data streams

The combination of Vogel and U.S. Patent No.: 6,658,021 do not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the SONET of the combination of Vogel and U.S. Patent No.: 6,658,021 in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 50, the combination of Vogel and U.S. Patent No.: 6,658,021 teach: the device of claim 46 and POS tributary data streams per col. 6 line 39 to 61)

The combination of Vogel and U.S. Patent No.: 6,658,021 do not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the to the POS tributary data of Vogel and U.S. Patent No.: 6,658,021 in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 51, the combination of Vogel and U.S. Patent No.: 6,658,021 teach: the device of claim 46 and ATM tributary data streams per col. 5 line 49 to col. 6 line 24)

The combination of Vogel and U.S. Patent No.: 6,658,021 do not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the to the ATM tributary data of Vogel and U.S. Patent No.: 6,658,021 in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 52, the combination of Vogel and U.S. Patent No.: 6,658,021 teaches the device of claim 46 and Vogel teaches: a POS tributary stream and ATM tributary stream (col.5 line 25 to col. 6 line 61)

Vogel and U.S. Patent No.: 6,658,021 do not expressly call for: composite tributary steams that includes a POS tributary and data stream and ATM tributary data

Schmidt teaches: composite tributary streams (Sub STS-1 signals called virtual tributaries which can be used for various types of services per col. 3 lines 33 to 67)

It would have been obvious to add the composite tributary steams of Schmidt in place of the STS SPE of Vogel and U.S. Patent No.; 6,658,021 in order to carry the POS and ATM data simultaneously in order to more efficiently utilize the bandwidth and also be standards compliant.

Referring to claim 53, U.S. Patent 6,658,021 teaches: one or more devices in a data processing environment (Forwarding node per claim 1) comprising:

A multiplexer configured to receive tributary data streams (The decapsulation logic or multiplexer delineates or separates into multiple formats (tributaries of constituent tributary data per claim 1)

Packet over synchronous optical network (POS) tributary data stream (Claim 5 or Claim 8)

An asynchronous transfer mode (ATM) tributary data stream (Claim 3)

The multiplexer being further configured to combine the tributary data streams in to a single channelized synchronous optical network (SONET) data stream (Decapsulation Logic combines tributary data streams are inherently part of SONET standard per claim 1)

U.S. Patent No.: 6,658, 021 does not expressly call for: line card coupled to a demultiplexer or combining the tributary data streams into single channel SONET data stream

Vogel teaches: line card coupled to a demultiplexer (Line Interface or line card coupled to the Framer or demultiplexer per col.5 line 25 to col. 6 line 61)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the line card of Vogel to decapsulation logic which performs demultiplexing in order to build a system in which the optical to electrical converter can be replaced separately from the demultiplexer in the event of a failure of either component thus making the repair of the unit easier.

The combination of Vogel and U.S. Patent No. 6,658,021 do not expressly call for: combining the tributary data streams into single channel SONET data stream

Schmidt teaches: combining the streams into single channel SONET data stream (Subchannels which are VTs can be assigned within an STS-1 to combine different services into a single channelized data stream per col. 3 lines 33 to 67).

It would have been obvious to add the VTs of the Schmidt to the STS-1 of the combination of Vogel and U.S. Patent No.; 6,658,021 in order to carry a combined stream of packet over

SONET and ATM over SONET in a single SONET stream in order to better utilize the bandwidth as well as standards compliant in order to interoperate with legacy SONET systems.

Referring to claim 54, the combination of U.S. Patent No.: 6,658,021, Vogel, and Schmidt teach: the one or more devices of claim 53 and wherein the tributary data steam includes a point to point protocol (SPE includes PPP per col. 6 line 39 to 61)

The combination of U.S. Patent No.: 6,658,021 and Vogel do not expressly call for: DS tributary data

Schmidt teaches: DS tributary data (VT or T1 tributary or DS-1 tributary per col. 3 lines 33 to 67).

It would have been obvious to add the DS tributary of the Schmidt to the PPP packet of the combination of U.S. Patent No.: 6,658,021, Vogel, and Schmidt in order to be standards compliant and build a system which is interoperable with legacy SONET systems.

Referring to claim 55, the combination of U.S. Patent No.: 6,658,021, Vogel, and Schmidt teach: the one or more devices of claim 53 and channelized SONET data streams

U.S. Patent No.: 6,658,021 and Vogel not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the SONET of U.S. Patent No.: 6,658,021, Vogel, and Schmidt in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 56, the combination of U.S. Patent No.: 6,658,021, Vogel, and Schmidt teach: the one or more devices of claim 53 and Vogel teaches: the POS tributary data streams (per col. 6 line 39 to 61)

The combination of U.S. Patent No.: 6,658,021 and Vogel not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the to the POS tributary data of U.S. Patent No.: 6,658,021, Vogel, and Schmidt in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 57, the combination of U.S. Patent No.: 6,658,021, Vogel, and Schmidt teach: the one or more devices of claim 53 and Vogel ATM tributary data streams (per col. 5 line 49 to col. 6 line 24)

U.S. Patent No.: 6,658,021 and Vogel do not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to add the optical carry rate of the SONET standard Schmidt to the to the ATM tributary data of the combination of U.S. Patent No.: 6,658,021, Vogel, and Schmidt in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 58, the combination U.S. Patent No.: 6,658,021, Vogel, and Schmidt teach the one or more devices of claim 53 and Vogel teaches a POS tributary stream and ATM tributary stream (col.5 line 25 to col. 6 line 61)

The combination of U.S. Patent No.: 6,658,021 and Vogel does not expressly call for: composite tributary steams that includes a POS tributary and data stream and ATM tributary data

Schmidt teaches: composite tributary streams (Sub STS-1 signals called virtual tributaries which can be used for various types of services per col. 3 lines 33 to 67)

It would have been obvious to add the composite tributary steams of Schmidt in place of the STS SPE of U.S. Patent No.: 6,658,021 and Vogel in order to carry the POS and ATM data simultaneously in order to more efficiently utilize the bandwidth and also be standards compliant.

Referring to claim 60, U.S. Patent 6,658,021 and Vogel teaches: the forwarding node of claim 59 and wherein the tributary data steam includes a point to point protocol (SPE includes PPP per col. 6 line 39 to 61)

U.S. Patent 6,658,021 and Vogel do not expressly call for: DS tributary data

Schmidt teaches: DS tributary data (VT or T1 tributary or DS-1 tributary per col. 3 lines 33 to 67).

It would have been obvious to add the DS tributary of the Schmidt to the PPP packet of Vogel and U.S. Patent 6,658,021 in order to be standards compliant and build a system which is interoperable with legacy SONET systems.

Referring to claim 61, U.S. Patent 6,658,021 and Vogel teach: the forwarding node of claim 59 and channelized SONET data streams

The combination of U.S. Patent 6,658,021 and Vogel do not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the optical carry rate of the SONET standard Schmidt to the SONET of U.S. Patent 6,658,021 and Vogel in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 62, the combination of U.S. Patent 6,658,021 and Vogel teaches: the forwarding node of claim 59 and the POS tributary data streams (per col. 6 line 39 to 61)

The combination of U.S. Patent 6,658,021 and Vogel do not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the optical carry rate of the SONET standard Schmidt to the to POS tributary data of U.S. Patent 6,658,021 and Vogel in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 63, the combination of U.S. Patent 6,658,021 and Vogel teach: the forwarding node of claim 59 and ATM tributary data streams (per col. 5 line 49 to col. 6 line 24)

The combination of U.S. Patent 6,658,021 and Vogel do not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the optical carry rate of the SONET standard Schmidt to the to ATM tributary data of Vogel and U.S. Patent 6,658,021 in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 64, the combination of U.S. Patent 6,658,021 and Vogel teache the forwarding node of claim 59 and a POS tributary stream and ATM tributary stream (col.5 line 25 to col. 6 line 61)

The combination of U.S. Patent 6,658,021 and Vogel do not expressly call for: composite tributary steams that includes a POS tributary and data stream and ATM tributary data

Schmidt teaches: composite tributary streams (Sub STS-1 signals called virtual tributaries which can be used for various types of services per col. 3 lines 33 to 67)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the composite tributary steams of Schmidt in place of the STS SPE of U.S. Patent 6,658,021 and Vogel in order to carry the POS and ATM data simultaneously in order to more efficiently utilize the bandwidth and also be standards compliant.

Referring to Claim 65, U.S. Patent 6,658,021 teaches: method for transmitting information over a fiber optic cable (Forwarding node perform the method) the method comprising:

Constructing a packet over synchronous optical network data stream (decapsulation logic per claim 1)

Constructing an asynchronous transfer mode (ATM) data stream (decapsulation logic per claim 1)

Combining a single channelized synchronous optical network (SONET) data stream (Claim 1)

U.S. Patent No.: 6,658,021 does not expressly call for: combining the POS data stream and the ATM data stream or transmitting the single data stream.

Vogel teaches: line card coupled to a demultiplexer (Line Interface or line card coupled to the Framer or demultiplexer per col.5 line 25 to col. 6 line 61)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the line card of Vogel to decapsulation logic which performs demultiplexing in order to build a system in which the optical to electrical converter can be replaced separately from the demultiplexer in the event of a failure of either component thus making the repair of the unit easier.

The combination of U.S. Patent No.: 6,658,021 and Vogel do not expressly call for: combining the POS data stream and the ATM data stream or transmitting the single data stream.

The combination of U.S. Patent No.; 6,658,021 and Vogel do not expressly call for: combining the POS data stream and the ATM data stream into single data stream

Schmidt teaches: combining different services into a single data stream (Sub STS-1 signals called virtual tributaries which can be used for various types of services per col. 3 lines 33 to 67)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the composite tributary steams of Schmidt in place of the STS SPE of Vogel and U.S. Patent No.: 6,658,021 in order to carry the POS and ATM data simultaneously in order to more efficiently utilize the bandwidth and also be standards compliant.

In addition Vogel teaches:

Regarding claim 66, wherein the single data stream is transmitted over a single optical fiber (38 per Fig 3 transmits to an inherent single optical fiber)

Referring to claim 67, the combination of U.S. Patent No.: 6,658,021, Vogel, and Schmidt teach: the device of claim 65 and Vogel teaches: channelized SONET data streams per col. 5 line 24 to col. 6 line 61)

The combination of U.S. Patent No.: 6,658,021 and Vogel do not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the optical carry rate of the SONET standard Schmidt to the SONET of combining the POS data stream and the ATM data stream or transmitting the single data stream of the combination of U.S. Patent No.: 6,658,021, Vogel, and Schmidt in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 68, the combination of U.S. Patent No.: 6,658,021, Vogel, and Schmidt teach: the device of claim 65 and Vogel teaches: POS tributary data streams per col. 6 line 39 to 61)

The combination of U.S. Patent No.: 6,658,021 and Vogel do not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the optical carry rate of the SONET standard Schmidt to the to the POS tributary data of the combination of U.S. Patent No.: 6,658,021, Vogel, and Schmidt in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 69, the combination of U.S. Patent No.: 6,658,021, Vogel, and Schmidt teach: the device of claim 65 and Vogel teaches: ATM tributary data streams per col. 5 line 49 to col. 6 line 24)

U.S. Patent No.: 6,658,021 and Vogel do not expressly call for: optical carry rate in accordance with the SONET standard.

Schmidt teaches: optical carry rate in accordance with the SONET standard per col. 3 lines 34 to 67

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the optical carry rate of the SONET standard Schmidt to the to the ATM tributary data of the combination of U.S. Patent No.; 6,658,021, Vogel, and Schmidt in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Response to Arguments

9.   Applicant's arguments with respect to claims 46-69 have been considered but are moot in

view of the new ground(s) of rejection.

In addition:
The examiner found the applicant's argument persuasive relative to the priority data of the reference McKeown; however, the examiner points out that the applicant's application is not a division but a continuation in part.   To be a divisional application; applicant's specification must be identical with the provisional application.   Applicant has added new specification material on which the claims are based therefore applicant has submitted a continuation in part and is only entitled to the filing data of applicant's applicatioin.

  The examiner also found applicant's argument persuasive relative to the 112 2nd rejections.

The examiner respectfully disagrees with the applicant argument that the U.S. Patent No.: 6,658,021 did not teach: demultiplexer that received channelized SONET data stream and separates constituent tributary data:

U.S. Patent No.: 6,658,021 teaches: demultiplexer that received channelized SONET data stream per claim 1 and separates constituent tributary data (In claims 3, 5 , and 8 respectively separate packets and ATM from constituent tributaries)

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ROBERT W. WILSON** whose telephone number is (571)272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571/272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert W Wilson/
Primary Examiner, Art Unit 2619

RWW
5/14/08